M30846
02-3

U.S. EPA-Region VIII

DATA SHEET AND GUIDANCE FOR NATIONAL CORRECTIVE ACTION PRIORITIZATION SYSTEM (NCAPS)

(version as of 10/27/97)

Facility Name: ASARCO RCRA ID#: MTD 006 230 346

GROUND WATER PATHWAY

I. WASTE CHARACTERISTICS

A. Contaminant of Concern: Arsenic

Toxicity/Persistence: 0, 3, 6, 9, 12, 15, 18. (Taken from Toxicity Table, water column)

B. Quantity (yd3 or tons):

if known:	if not known:
1-10 = 1 11-62 = 2 63-125 = 3 126-250 = 4 251-625 = 5 626-1250 = 6 1251-2500 = 7 >2500 = 8	likely to be small (<10) = 1 likely to be large (100-1000) = 4 large storage/disposal areas (>2500) are present = 8

Waste Characteristics (WC) subscore: WC = A + B = 26 (Range = 1 to 26)

II. PATHWAY:

A. Observed Release: no = 0; possible = 10; yes = 45. If yes (45), skip potential release, proceed to targets.

B. Potential Release (if A = 0 or 10):

1. Depth to Aquifer:	2. Net Precipitation	3. Physical State
> 150' = 0 76-150' = 2 21-75' = 4 0-20' = 6	< -10" = 0 -10 to < +5" = 2 +5 to +15" = 4 > +15" = 6	Stable Solid = 0 Unstable Solid = 1 Powder, Ash = 2 Liquid, Gas, Sludge = 3

C. Containment: very good = 0; good = 1; fair = 2; poor = 3

Pathway (P) subscore: Range = 0 to 45, using either Observed or Potential Release:

if Observed Release (A = 45), then P = 45;	if Potential Release (A = 0 or 10), then P = A + [(B1+B2+B3) x C] = _____, max of 45

III. TARGETS:

A. Ground Water Use:	B. Distance to intake (miles)
Quality not impacted = 0 Quality impacted = 2 Agriculture or industry = 3 Possible drinking water = 4 Drinking water = 5	> 3 = 0 > 2 to 3 = 1 > 1 to 2 = 2 1/2 to 1 = 3 < 1/2 = 4

Targets (T) subscore: $T = A^2 + B^2 =$ 32 (Range = 0 to 41; if A or B = 0, then T = 0.)

IV. TOTAL GW PATHWAY SCORE: Sgw = (WC x P x T)/479.7 = 78 Range = 0 to 100

26 × 45 × 32 = 78

SURFACE WATER PATHWAY

I. WASTE CHARACTERISTICS

A. Contaminant of Concern: Arsenic

Toxicity/Persistence: 0, 3, 6, 9, 12, 15, 18. (Taken from Toxicity Table, water column)

B. Quantity (yd3 or tons):

if known:	if not known:
1-10 = 1 11-62 = 2 63-125 = 3 126-250 = 4 251-625 = 5 626-1250 = 6 1251-2500 = 7 >2500 = 8	likely to be small (<10) = 1 likely to be large (100-1000) = 4 large storage/disposal areas (>2500) are present = 8

Waste Characteristics (WC) subscore: WC = A + B = 26 (Range = 1 to 26)

II. PATHWAY:

A. Observed Release:

1. no = 0; yes = 45. If yes (45), skip potential release, proceed to targets.
2. Permitted Outfall: no = 0; yes = 5
3. Permit Violations: no = 0; yes = 5

B. Potential Release (if A1 = 0):

1. facility location:	2. 24 hour rainfall:	3. distance to surface water:	4. physical state
flood prone area = 3 100 year flood plain = 2 other = 1	< -1.0" = 0 -1 to 2" = 1 2.1 to 3" = 2 > 3" = 3	> 2 miles = 0 > 1 to 2 miles = 2 1/4 to 1 mile = 4 < 1/4 mile = 6	Stable Solid = 0 Unstable Solid = 1 Powder, Ash = 2 Liquid, Gas, Sludge = 3

C. Containment: very good = 0; good = 1; fair = 2; poor = 3

Pathway subscore (P): Range = 0 to 45, using either Observed or Potential Release:

if Observed Release (A1 = 45), then P = 45;	if Potential Release (A1 = 0), then P = A2 + A3 + [(B1+B2+B3+B4) x C] = _____, max of 45

III. TARGETS:

A. Surface Water Impacts:	B. Distance to intake (miles)	C. Distance to Sensitive Environment (miles):
none within 3 miles = 0 no impacts, intake within 3 miles = 1 quality impacted = 2 Agriculture or industry = 3 Recreation/possible drinking water = 4 Drinking water = 5	> 3 = 0 > 2 to 3 = 1 > 1 to 2 = 2 1/2 to 1 = 3 < 1/2 = 4	> 2 = 0 > 1 to 2 = 2 1/2 to 1 = 4 < 1/2 = 6

Targets (T) subscore: $T = A^2 + B^2 + C =$ 38 (Range = 0 to 47; if A or B = 0, then T = 0.)

IV. TOTAL SW PATHWAY SCORE: Ssw = (WC x P x T)/549.9 = 90.9 (Range = 0 to 100)

26 x 45 x 38

16 + 16 + 6 = 38

M130346
02-3

AIR PATHWAY

I. WASTE CHARACTERISTICS

A. Contaminant of Concern: Lead

Toxicity/Persistence: Taken from Toxicity Table, air column. Multiply table value (0, 1, 2, 3) by 3 to convert to value used in equation (0, 3, 6, 9).

B. Quantity (yd3 or tons):

if known:	if not known:
1-10 = 1 11-62 = 2 63-125 = 3 126-250 = 4 251-625 = 5 626-1250 = 6 1251-2500 = 7 >2500 = 8	likely to be small (<10) = 1 likely to be large (100-1000) = 4 large storage/disposal areas (>2500) are present = 8

Waste Characteristics (WC) subscore: WC = A + B = 11 (Range = 1 to 17)

II. PATHWAY:

A. Observed Release:

1. no = 0; yes = 45. If yes (45), skip potential release, proceed to targets.
2. Air Operating Permit: no = 0; yes = 5
3. Permit Violations and/or odor complaints: no = 0; yes = 10

B. Potential Release (if A1 = 0):

Can contaminants migrate to the air: no = 0; yes = 3

C. Containment:

very good = 0; good = 1; fair = 2; poor = 3

15 + 9

Pathway (P) subscore: Range = 45 for Observed Release, 0 to 24 for Potential Release
(unable to max score without Observed Release)

if Observed Release (A = 45), then P = 45;	if Potential Release (A1 = 0), then P = A2 + A3 + (B x C) = 24, max of 24

III. TARGETS:

A. Population:	B. Distance to Sensitive Environment (miles):
Residences within 4 miles = 25 Other industries within 4 miles = 20 Agricultural lands within 4 miles = 15 Any other situation = 10	> 2 = 0 > 1 to 2 = 2 1/2 to 1 = 4 < 1/2 = 6

Targets (T) subscore: T = A + B = 31 (Range = 10 to 31)

IV. TOTAL AIR PATHWAY SCORE: Sa = WC x P x T/237.15 = 34.5 (Range = 0 to 100)

11 x 24 x 31

ON-SITE PATHWAY

I. WASTE CHARACTERISTICS

A. Contaminant of Concern: lead

Toxicity/Persistence: 0, 1, 2, (3). Taken directly from Toxicity Table, air column; no conversion.

B. Quantity (yd3 or tons): not considered

Waste Characteristics (WC) subscore: WC = A = 3 (Range = 0 to 3)

II. PATHWAY:

A. Observed Soil Contamination:

no = 0; yes = (25)

B. Potential Release - Site Access:

inaccessible = 0; limited access = (2); unlimited access = 4

C. Containment:

very good = 1; good = 2; fair = 3; (poor = 4)

Pathway subscore (P): range = 0 - 100, but score is very low without observed contamination:

if Access (B) = 0, then P = A = ____	if Access (B) = 2 or 4, then P = (A + C) (max of 25) x B = 58

III. TARGETS:

A. Distance to Residential Areas (miles):	B. Sensitive Environment on-site:
> 1 = 0 > 1/2 to 1 = 2 1/4 to 1/2 = 4 (< 1/4 = 6)	no = 0 (yes = 1)

Targets (T) subscore: T = A + B = 7 (Range = 0 to 7)

IV. TOTAL ON-SITE PATHWAY SCORE:

Sos = WC x P x T/21 = 58 (Range = 0 to 100)

3 x 28 x 7

TOTAL FACILITY SCORE (Sm)

The equation is a root-mean-square of the 4 pathway scores:

78 80.9 34.5 58

Sm = $(Sgw^2 + Ssw^2 + Sa^2 + Sos^2)^{1/2}$ x 1/2 = 66 (Range = 0 to 100)

RANKING FACILITIES UNDER NCAPS:

High: (Sm ≥ 52; or Sgw ≥ 71; or Ssw ≥ 63; or Sa ≥ 53; or Sos ≥ 71)

Medium: Sm ≥ 25, < 52

Low: Sm < 25

Circle the appropriate rank.

EH 85-154 (095)

3364 + 6544.8 + 6084 + 1190.3